

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listing, of claims in the application:

Listing of Claims

26. (Original) A radio frequency data communication system for transmission of data collected by a multiplicity of mobile transceiver units, to a base transceiver, comprising:

a base transceiver selectively operable at a limited data rate and at an increased data rate;

the multiplicity of mobile transceiver units selectively operable at the limited data rate and at the increased data rate;

said mobile transceiver units responsive to transmissions by said base transceiver, and having control means therein to evaluate the feasibility of responding at said increased data rate;

said base transceiver effecting a communication link with one or more of said mobile transceiver units;

said mobile transceiver units for which a communication link with said base transceiver has not been established receiving the transmissions of said base transceiver to said mobile transceiver units with which a communication link has been established;

said mobile transceiver units evaluating for consistent reception of said transmissions to said one or more transceiver units;

said mobile units which consistently receive transmissions at the increased data rate responding to the base transceiver at said increased data rate when said base transceiver directs communication to said mobile unit.

27. (Original) The system of claim 26 wherein said mobile transceiver units independently evaluate transmissions from the base transceiver to said one or more mobile transceiver units having a communications link with said base transceiver.

28. (Original) The system of claim 26 wherein each mobile transceiver unit remains to receive data while no communication link is established between said mobile transceiver unit and the base transceiver.

29. (Original) The system of claim 26 wherein the base transceiver transmits packets of data to said one or more mobile transceiver units having a communication link with the base transceiver, each mobile transceiver unit with which a communication link has not been established:

attempting to receive packets of data transmitted by the base transceiver to said one or more units having a communication link with the base transceiver;

each mobile transceiver unit with which a communication link has not been established;

evaluating receipt of packets of data at the increased data rate and at the limited data rate.

30. (Original) The system of claim 26 wherein said mobile transceiver units which have not established a communication link with said base receiver receiving polling signals transmitted by said base transceiver at the increased data rate:

said mobile transceiver units evaluating for constant reception of said polling signals, to determine the feasibility of successful communication with said base transceiver at the increased data rate.

31. (Previously Presented) The system of claim 26 wherein said mobile transceiver sampling data transmitted to said one or more of said mobile transceiver units at said limited data rate and at said increased data rate.

32. (Original) In a radio frequency data communication system wherein a multiplicity of mobile transceiver units are to collect data and are to transmit the collected data promptly after its collection to a base transceiver station and wherein reliable communication between such mobile transceiver units and said base transceiver station could occur at a limited data rate, the invention comprising:

a base transceiver station capable of transmitting data at a limited data rate and at an increased data rate, said base transceiver station effecting a communication with at least one of the mobile transceiver units at the increased data rate;

the mobile transceiver units evaluating the communication from the base transceiver station to said at least one mobile transceiver unit to predict whether successful communication with the base transceiver station will occur at the increased data rate;

said mobile transceiver units which predict successful communication with the base transceiver station at the increased data rate responding to signals from the base transceiver station at the increased data rate;

said mobile transceiver units which fail to predict successful communication with the base transceiver station at the increased rate responding signals from the base transmission station at the limited data rate.

33. (Original) The system of claim 32 wherein said mobile transceiver units responding at the increased data rate transmitting their identities to said base transceiver station and said mobile transceiver units responding at the limited data rate transmitting their identities to said base transceiver station.

34. (Currently Amended) The method of operating a radio frequency data communication system wherein a multiplicity of mobile transceiver units are to collect data and are to be able to transmit the collected data promptly after its collection to a base transceiver station, during movement of the mobile transceiver units at varying distances from the base transceiver station and wherein reliable communication with

such mobile transceiver units over the entire area of mobile operation could only take place a limited normal data rate, said method comprising:

in a communications interchange between the base transceiver station and one or more mobile transceiver units, effecting an RF wireless transmission from said base transceiver station in one communication direction via an RF link at a higher than normal data rate;

at a mobile transceiver unit receiving the transmission, evaluating the consistency of reception of the transmission at a higher than normal data rate to predict successful communication between a respective mobile transceiver unit and the base transceiver station at a higher than normal data rate in spite of potentially adverse transmission conditions;

if the evaluation of the received transmission determines that transmission at a high data rate would be likely to be subject to detrimental transmission conditions, transmitting a responsive RF wireless transmission in the opposite communication direction via said RF link signaling for further communications interchange at the limited normal data rate, and

if the evaluation of the received ~~test-signal~~ transmission determines that transmission conditions are not likely to prevent successful transmission at a high data rate, transmitting a responsive RF wireless transmission in such opposite communication direction via said RF link signaling for further communications interchange at a higher data rate substantially higher than the limited normal data rate.

35-71. (Cancelled)

72. (New) The method of claim 34 comprising said mobile transceiver units independently evaluating the consistency of reception of the transmission.

73. (New) The method of claim 34, wherein at least one of said mobile transceiver units comprises a mobile unit on a vehicle.

74. (New) The method of claim 34, wherein at least one of said mobile transceiver units comprises a portable device having a controller for controlling dynamic data rate selection and for providing local processing of user and peripheral device inputs.